

Application No. 10/791,034  
Amendment dated September 13, 2005  
Reply to Office Action of June 23, 2005

COPY

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for the automatic collection of surveillance information by an unmanned air vehicle, the method comprising the steps of:  
receiving an automatic collection requirements message;  
determining a route for gathering requested information about a target in accordance with a collection policy;  
dynamically inserting new sensor collection requests into an existing collection plan; and  
controlling operation of an air vehicle to follow the route and gather the requested information.
2. (Original) The method of claim 1, wherein each automatic collection requirements message includes priority and precedence information.
3. (Original) The method of claim 2, wherein the step of a determining route for gathering requested information comprises the steps of:  
determining a collection plan and a flight plan in accordance with the priority and precedence information.
4. (Original) The method of claim 3, wherein the collection plan is responsive to imaging constraints including one or more of:  
temporal constraints, look angles, National Imagery Interpretability Rating Scale rating, priority, bandwidth, and storage capacity.
5. (Original) The method of claim 1, wherein the step of a determining route for gathering requested information comprises the steps of:  
determining if the target is within range; and  
planning a route to the target if the target is within range.
6. (Original) The method of claim 1, wherein the step of a determining route for gathering requested information comprises the steps of:

Application No. 10/791,034  
Amendment dated September 13, 2005  
Reply to Office Action of June 23, 2005

COPY

determining if a receiver is within range; and  
if a receiver is not within range, planning a route to an area where a receiver is within range.

7. (Canceled)

8. (Currently Amended) An automatic collection management system for an unmanned air vehicle comprising:

a receiver for receiving an automatic collection requirements message;

a processor for determining a route for gathering requested information about a target in accordance with a collection policy; and

a vehicle control for controlling operation of an air vehicle to follow the route and gather the requested information;

wherein the processor dynamically inserts new sensor collection requests into an existing collection plan.

9. The system of claim 8, wherein each automatic collection requirements message includes priority and precedence information.

10. (Original) The system of claim 8, wherein the processor determines a collection plan and a flight plan.

11. (Original) The system of claim 10, wherein the collection plan is responsive to imaging constraints including one or more of:

temporal constraints, look angles, National Imagery Interpretability Rating Scale rating, priority, bandwidth, and storage capacity.

12. (Original) The system of claim 8, wherein the processor determines if the target is within range and plans a route to the target if the target is within range.

13. (Original) The system of claim 8, wherein the processor determines if a receiver is within range; and if a receiver is not within range, plans a route to an area where a receiver is within range.

14. (Canceled)

15. (Currently Amended) An automatic collection management system for an unmanned air vehicle comprising:

Application No. 10/791,034  
Amendment dated September 13, 2005  
Reply to Office Action of June 23, 2005

COPY

means for receiving an automatic collection requirements message;

means for determining a route for gathering requested information about a target, and new sensor collection requests dynamically inserted into an existing collection plan, in accordance with a collection policy; and

means for controlling operation of an air vehicle to follow the route and gather the requested information.

16. (Original) The system of claim 15, wherein each automatic collection requirements message includes priority and precedence information.

17. (Original) The system of claim 15, wherein the means for determining a route for gathering requested information determines a collection plan and a flight plan.

18. (Original) The system of claim 17, wherein the collection plan is responsive to imaging constraints including one or more of:

temporal constraints, look angles, National Imagery Interpretability Rating Scale rating, priority, bandwidth, and storage capacity.

19. (Original) The system of claim 15, wherein the means for determining a route for gathering requested information determines if the target is within range and plans a route to the target if the target is within range.

20. (Original) The system of claim 15, wherein the means for determining a route for gathering requested information determines if a receiver is within range; and if a receiver is not within range, plans a route to an area where a receiver is within range.